

SPECIFICATION AMENDMENTS

Please replace the paragraph/section beginning at page 1, line 5, with the following rewritten paragraph:

The present invention relates to a DPSS laser, and more particularly to a green DPSS laser wherein a volume and a weight thereof are significantly reduced with respect to conventional ones.

Please replace the paragraph/section beginning at page 1, line 14, with the following rewritten paragraph:

A typical green DPSS laser is as schematically shown in Figs. 1a and 1b. The green DPSS laser consists of a laser diode (LD) that comprises a LD casing 101, a heat sink mounted within the LD casing 101, a semiconductor chip 102 mounted on the heat sink and an output window, which emitting a pumping radiation for exciting a lasing medium, a lens system 103 is mounted within a casing 106 for focusing of the pumping radiation, ~~and an~~. An optical resonant cavity, which is mounted within a cavity casing 108, ~~including~~ includes a lasing medium 104 for a light amplification of 1064nm in wavelength and an intracavity frequency doubler 105 for converting 1064nm to 532nm in wavelength, ~~either~~ wherein the lasing medium 104 and the intracavity frequency doubler are ~~departing~~ separated with each other or being combined together. In other words, The LD casing 101, the lens system casing 106 and the cavity casing 108 are sealed in the casing 109. If the lasing medium 104 and the intracavity frequency doubler 105 are combined together, an anti-reflection coating at 808 nm (AR@808nm) and a high-reflection coating at 532 nm (HR@532nm) and 1064 nm (HR@1064nm) are applied to an input facet facing the laser diode, and HR coating @1064 nm and AR coating @532 nm are applied to an output facet opposite to the input facet. When the lasing medium 104 and the intracavity frequency doubler 105 are discrete, AR coating @808 nm and HR coating @1064 nm and 532 nm are applied to the input facet of the lasing medium 104, and AR coating @1064 nm and 532nm to an output facet of the lasing medium 104 opposite to the input facet thereof; while AR coating @1064 nm and 532 nm is applied to an input facet of the intracavity frequency doubler 105 facing the output facet of the

lasing medium 104, and HR coating @1064 nm and an AR coating @532 are applied to an output facet of the intracavity frequency doubler 105 opposite to the input facet thereof.

Please replace the paragraph/section beginning at page 2, line 24, with the following rewritten paragraph:

So, it is thought that if the optical resonant cavity, together with other wanted optics, can be put into within the casing of the laser diode before the semiconductor chip, the volume and weight of the whole DPSS laser will thus significantly ~~lowered~~ minimized.

Please replace the paragraph/section beginning at page 3, line 2, with the following rewritten paragraph:

A main object of the present invention is to provide a green DPSS laser, wherein a volume thereof is substantially smaller than a volume of the conventional ones.

Please replace the paragraph/section beginning at page 3, line 4, with the following rewritten paragraph:

Another object of the present invention is to provide a green DPSS laser, wherein a weight thereof is substantially less than a weight of the conventional ones.

Please replace the paragraph/section beginning at page 5, line 26, with the following rewritten paragraph:

According to the preferred embodiment, the lasing medium 203 and the intracavity frequency doubler 204 are combined together, wherein the input facet of the lasing medium 203 is coated with a coating having a high transmissivity at a wavelength of 808nm and a high reflectance at wavelength of 1064nm and 532nm while the output facet of the intracavity frequency doubler 204 is coated with a coating having a high transmissivity at a wavelength of 532nm and a high reflectance at a wavelength of 1064nm.

Please replace the paragraph/section beginning at page 6, line 12, with the following rewritten paragraph:

As shown in Fig. 4, the lasing medium 203 and the intracavity frequency doubler 204 are spaced ~~with~~ apart from each other, wherein the input facet of the lasing medium 203 is coated with a coating having a high transmissivity at a wavelength of 808nm and a high reflectance at wavelength of 1064nm and 532nm while a facet of the lasing medium opposite to said input facet is coated with a coating having a high transmissivity at wavelength of 1064nm and 532nm.

Please replace the paragraph/section beginning at page 7, line 1, with the following rewritten paragraph:

As shown in Fig. 7, when the intracavity frequency doubler 204 is omitted, an infrared light at 1064nm is output. Accordingly, a 808nm anti-reflection layer and a 1064nm high-reflection layer are respectively coated at the input facet of the lasing medium 203 while a 1064nm high-reflection layer is coated at the output facet of the lasing medium 203, wherein an optical resonant cavity is defined between the input and output facets. In addition, a 1064nm anti-reflection layer and a 808nm high reflection layer are respectively coated at the light detecting surface of the photodiode 206. Therefore, the photodiode 206 is adapted for detecting the infrared light from the IR blocking filter 205 as a feedback for controlling a power output of the optical resonant cavity.